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Patent
Docket No: 53934US010

10/014736
JC835 US PRO
12/11/01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

William E. Foltz, Robert A. Asmus and
Ronald G. Lulich.

Group Art Unit:

Serial No.: Divisional of 09/228,712

Filed: December 11, 2001

Examiner:

For: STERILIZATION INDICATOR WITH CHEMICALLY STABILIZED ENZYME

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Box Patent Application, Commissioner for Patents, Washington, DC 20231 on:

Date: December 11, 2001

Signature: Colleen M. Wagner

Colleen M. Wagner

INFORMATION DISCLOSURE STATEMENT

Box Patent Application
Commissioner for Patents
Washington, DC 20231

Dear Sir:

Pursuant to 37 CFR §1.56 and §1.97-1.98, enclosed please find a completed Form PTO-1449, citing references for consideration by the Examiner during examination of the above-referenced patent application. In accordance with 37 C.F.R. §1.98(d), copies of these references are not enclosed as they can be found in the file of parent case U.S. Serial No. 09/228,712, filed January 12, 1999.

Applicants request consideration of these references by the Examiner in regard to the present application, and that the Examiner initial and return the enclosed Form PTO-1449.

It is believed that no fee is due in connection with this Information Disclosure Statement; however, if any such fee is due, please charge to Deposit Account No. 13-3723.

Respectfully submitted,

By

John A. Burtis

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Date December 11, 2001	

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	Filing Date: December 11, 2001	Group:

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
		3,239,429	03/08/66	Menolasino et al.	195	54	
		3,440,144	04/22/69	Andersen	195	103.5	
		3,661,717	05/09/72	Nelson	195	103.5	
		4,115,068	09/19/78	Joslyn	422	56	
		4,145,186	03/20/79	Andersen	23	232	
		4,240,926	12/23/80	McNeely	252	408	
		4,304,869	12/08/81	Dyke	435	296	
		4,580,682	04/08/86	Gorski et al.	206	569	
		4,594,223	06/10/86	Dyke et al.	422	56	
		4,596,696	06/24/86	Scoville, Jr.	422	61	
		4,636,472	01/13/87	Bruso	435	287	
		4,642,165	02/10/87	Bier	203	12	
		4,643,876	02/17/87	Jacobs et al.	422	23	
		4,650,479	03/17/87	Insley	604	358	
		4,692,307	09/08/87	Bruso	422	58	
		4,699,765	10/13/87	Hambleton	422	57	
		4,739,881	04/26/88	Bruso	206	305	
		4,797,255	01/10/89	Hatanaka et al.	422	28	
		4,756,882	07/12/88	Jacobs et al.	422	23	
		4,828,797	05/09/89	Zwarun et al.	422	55	
		4,839,291	06/13/89	Welsh et al.	435	296	
		4,863,688	09/05/89	Schmidt et al.	422	28	
		5,073,488	12/17/91	Matner et al.	435	31	
		5,084,239	01/28/92	Moulton et al.	422	22	
		5,115,166	05/19/92	Campbell	315	111.21	
		5,178,829	01/12/93	Moulton et al.	422	23	
		5,184,046	02/02/93	Campbell	315	111.21	
		5,217,901	06/08/93	Dyckman	435	291	
		5,223,401	06/29/93	Foltz et al.	435	18	
		5,252,484	10/12/93	Matner et al.	435	288	

EXAMINER**Date Considered**

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(Also form PTO-1449)

Patent and Trademark Office, U.S. Department of Commerce

OMB No. 0651-0011

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		Applicant(s): William E. Foltz, Robert A. Asmus and Ronald G. Lulich					
		Filing Date: December 11, 2001			Group:		
		U.S. PATENT DOCUMENTS					
Examiner Initial		Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
		5,389,336	02/14/95	Childers	422	28	
		5,405,580	04/11/95	Palmer	422	28	
		5,418,167	05/23/95	Matner et al.	435	288	
		5,482,684	01/09/96	Martens et al.	422	119	
		5,486,459	01/23/96	Burnham et al.	435	31	
		5,500,184	03/19/96	Palmer	422	2	
		5,516,648	05/14/96	Malchesky et al.	435	31	
		5,552,320	09/03/96	Smith	435	287.4	
		5,667,753	09/16/97	Jacobs et al.	422	29	
		5,674,450	10/07/97	Lin et al.	422	29	
		5,739,004	04/14/98	Woodson	435	31	
		5,770,393	06/23/98	Dalmasso et al.	422	31	
		5,785,934	07/28/98	Jacobs et al.	427	29	
		5,788,941	08/04/98	Dalmasso et al.	422	33	
		5,795,730	08/18/98	Tautvydas	435	31	
		5,801,010	09/01/98	Falkowski et al.	435	31	
		5,830,683	11/98	Hendricks et al.	435	31	
		5,856,118	01/05/99	Dalmasso	435	31	
		5,866,356	2/99	Albert et al.	435	31	
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FOREIGN PATENT DOCUMENTS

		Document Number	Date of Publication	Country	Class	SubClass	Translation	
							Yes	No
		WO 94/28164	12/08/94	PCT				
		WO 97/26924	07/31/97	PCT				
		WO 98/46994	10/22/98	PCT				
		0 254 428 A	01/27/88	EPO				
		0 255 229 A2	02/03/88	EPO				
		0 419 282 B1	03/27/91	EPO				
		0 421 760 A1	04/10/91	EPO				
		0 421 760 B1	03/23/94	Europe				
		0 638 650 A1	02/15/95	Europe				
		0 707 186 A1	04/17/96	Europe				
		676743	12/20/94	AU				
		62/115266 (English Abstract)	05/26/87	JP				
		62/205748 (English Abstract)	09/10/87	JP				
		62/205750 (English Abstract)	09/10/87	JP				
		62/253357 (English Abstract)	11/05/87	JP				
		63/079579 (English Abstract)	04/09/88	JP				
		63/275517 (English Abstract)	11/14/88	JP				

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

		Alfa et al., "Comparison of Ion Plasma, Vaporized Hydrogen Peroxide, and 100% Ethylene Oxide Sterilizers to the 12/88 Ethylene Oxide Gas Sterilizer", <i>Infection Control and Hospital Epidemiology</i> , Vol. 17, No. 2, February 1996, pp. 92-100
		Baker, et al., "Thermal Stabilization of Fungal β -Glucosidase through Glutaraldehyde Crosslinking," <i>Biotechnology Letters</i> , vol. 10, No. 5, 325-330 (1988).

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OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

		Barbaric, et al., "Stabilization of Glycoenzymes by Cross-linking of Their Carbohydrate Chains," <i>Annals New York Academy of Sciences</i> , vol. 542, pp. 173-179 (1988).
		Corry, J., "The Effect of Sugars and Polyols on the Heat Resistance of <i>Salmonellae</i> ," <i>J. Appl. Bact.</i> , vol. 37, pp. 31-43 (1974).
		Gottschalk, et al., "Chemically Crosslinked Lactate Dehydrogenase: Stability and Reconstitution after Glutaraldehyde Fixation," <i>Biotechnology and Applied Biochemistry</i> , vol. 9, No. 5, pp. 389-400 (Oct. 1987).
		Hoshino, et al., "A study on the thermostability of microencapsulated glucose oxidase," <i>J. Microencapsulation</i> , Vol. 6, No. 2, pp. 205-211 (1989).
		Ichiba, et al., "Cation-induced thermostability of yeast and <i>Escherichia coli</i> pyrophosphatases," <i>Biochem. Cell Biol.</i> , vol. 66, pp. 25-31 (Jan. 1988).
		Kokufuta, et al., "Use of Polyelectrolyte Complex-Stabilized Calcium Alginate Gel for Entrapment of β -Amylase", <i>Biotechnology and Bioengineering</i> , vol. 32, pp. 756-759 (1988).
		Laurence, "Fluorescence Techniques for the Enzymologist", <i>Methods in Enzymology</i> , Vol. 4, S. P. Colowick and N.O. Kaplan, Eds., <i>Academic Press</i> , New York, 1957.
		Lenders, et al. "Chemical Stabilization of Glucoamylase from <i>Aspergillus niger</i> against Thermal Inactivation," <i>Biotechnology and Bioengineering</i> , Vol. 31, pp. 267-277 (1988).
		Leonowicz, et al., "Improvement in stability of an immobilized fungal laccase," <i>Applied Microbiology and Biotechnology</i> , Vol. 29, No. 2-3, pp. 129-135 (1988).
		Mecke, "Hydrogen Peroxide Plasma - an Interesting Microbiocidal Concept", <i>Hygiene + Medizin</i> , 1992:17:pp.537-543
		Olsen, et al. "Improvement of bacterial β -glucanase thermostability by glycosylation," <i>Journal of General Microbiology</i> , Vol. 137, pp. 579-585 (1991).
		Redway, et al., "Effect of Carbohydrates and Related Compounds on the Long-Term Preservation of Freeze-Dried Bacteria," <i>Cryobiology</i> , Vol. 11, pp. 73-79 (1974).
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		Roth, "Fluorimetric Assay of Enzymes", <i>Methods of Biochemical Analysis</i> , Vol. 17, D. Block, Ed., <i>Interscience Publishers</i> , New York, 1969.	
		Rutala et al., "Comparative evaluation of the sporicidal activity of new low-temperature sterilization technologies: Ethylene oxide, 2 plasma sterilization systems, and liquid peracetic acid", <i>AJIC</i> , Vol. 26, No. 4, August 1998, pp. 393-398	
		Smith, et al., "Effect of Environmental Conditions during Heating on Commercial Spore Strip Performance," <i>Applied and Environmental Microbiology</i> , Vol. 44, No. 1, pp. 12-18 (Jul. 1982).	
		Srivastava, R., "Studies on stabilization of amylase by covalent coupling to soluble polysaccharides," <i>Enzyme Microb. Technol.</i> , Vol. 13, No. 2, pp. 164-170 (Feb. 1991).	
		Srivastava, R., "Effect of glycosylation of bacterial amylase on stability and active site conformation," <i>Indian Journal of Biochemistry & Biophysics</i> , Vol. 28, No. 2, pp. 109-113 (Apr. 1991).	
		Sugiyama, H., "Studies on Factors Affecting the Heat Resistance of Spores of <i>Clostridium Botulinum</i> ," <i>Journal of Bacteriology</i> , Vol. 62, pp. 81-96 (1951).	
		Suwa, et al., "Effects of food emulsifiers on spoilage of canned coffee caused by thermophilic spore-forming bacteria", (1988), pp. 706-8	
		Toda, "Antimicrobial activity of polyglycerol fatty acid esters and their use in foods" (1988), pp. 69-74	
		Torchilin, et al., "Stabilization of Subunit Enzymes by Intramolecular Crosslinking with Bifunctional Reagents," <i>Annals New York Academy of Sciences</i> , Vol. 434, pp. 27-30 (1984).	
		Udenfriend, "Fluorescence in Enzymology", <i>Fluorescence Assay in Biology and Medicine</i> , Academic Press, New York, pp.312-348 (1962).	
		Vesley, et al., "Fluorimetric Detection of a <i>Bacillus stearothermophilus</i> Spore-Bound Enzyme, α -D-Glucosidase, for Rapid Indication of Flash Sterilization Failure," <i>Applied and Environmental Microbiology</i> , Vol. 58, pp. 717-719 (Feb. 1992).	
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